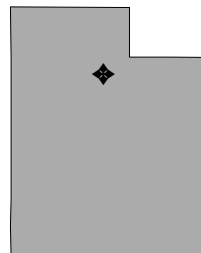


**Size:** 6,666 acres  
**Mission:** Provide logistics support for weapons systems  
**HRS Score:** 49.94; placed on NPL in July 1987  
**IAG Status:** IAG signed in April 1991  
**Contaminants:** Solvents, sulfuric acid, chromic acid, metals, and petroleum wastes  
**Media Affected:** Groundwater, surface water, sediment, and soil  
**Funding to Date:** \$115.3 million  
**Estimated Cost to Completion (Completion Year):** \$196.2 million (FY2047)  
**Final Remedy in Place or Response Complete Date for All Sites:** FY2007



### Ogden, Utah

## Restoration Background

Between FY82 and FY87, Preliminary Assessment and Site Inspection activities were completed at Hill Air Force Base. Since FY87, 97 sites have been identified. Forty of these sites have been grouped into nine operable units (OUs). Site types include disposal pits, landfills, surface impoundments, underground storage tanks (USTs), fire training areas, firing ranges, discharge and wastewater ponds, a contaminated building, a munitions dump, and spill sites.

The base installed five systems to treat groundwater, capped two landfills at OU1, capped one of the discharge and wastewater ponds at OU3, and recovered and treated trichloroethene (TCE)-contaminated groundwater at OU6. In FY95, the installation began work on the Remedial Investigation and Feasibility Study (RI/FS) for OUs 5 and 6 and implemented Phase I of the Interim Remedial Action at OU8. The installation also completed decision documents for 66 sites, signed Records of Decision (RODs) for five OUs, and signed two interim RODs.

In FY96, the installation demonstrated nine technologies for cleaning heavily contaminated chemical pits. A ROD was signed for Chemical Pit 3 (OU2), and construction of a containment system began. In addition, four UST sites were closed and five additional decision documents, as well as the ROD for OU2, were completed. The installation also completed Remedial Design and Remedial Action (RD/RA) activities at OU7 and completed the design and implemented the RA for upgrading the horizontal drain system at Landfill 1.

In FY97, a ROD was signed, and the RD phase began, for OU6. More than 200 areas of concern in OU9 were investigated and closed, requiring no further action. Innovative technologies, such as surfactant-enhanced removal of chlorinated solvents and steam-

enhanced removal of dense nonaqueous-phase liquids, were used at the installation. Use of hydropunch/geoprobe, real-time groundwater chemistry monitoring, and electromagnetic techniques accelerated fieldwork. Consolidating treatment system operations and completing investigations at unevaluated parts of the base under a single OU saved \$600,000 and reduced the time line by 2 years.

The installation formed a Restoration Advisory Board (RAB) in FY94. In FY97, RAB involvement in a review of the OU6 Proposed Plan provided an opportunity for early input into the groundwater collection approach. RAB comments were incorporated, reducing the estimated time to cleanup with only a marginal cost increase.

## FY98 Restoration Progress

A hydraulic barrier was constructed and is operating at OU2, and an innovative asphalt capping scheme was designed and constructed for OU3. At an off-base area with groundwater contamination, a natural attenuation cleanup strategy was employed and an innovative aeration curtain was also implemented to prevent contamination from moving into the local community. TCE in the groundwater was reduced by 99.4 percent. Over 42,000 gallons of solvent has been removed, with a 98 percent removal efficiency, reducing the cost of long-term treatment by \$30 million.

A ROD was signed for six sites in OU1. The installation cosponsored a national conference in Salt Lake City on natural attenuation of chlorinated solvents for regulatory personnel and stakeholders.

A partnership is in place and a cleanup agreement is being drafted for the Utah Test and Training Range (UTTR) to avoid unnecessary investigations and studies. All USTs have been addressed with a risk-based corrective action approach; some of these sites are still awaiting regulatory concurrence. Partnership efforts with EPA Region 8 and the

Utah Department of Environmental Quality continued. A new EPA remedial project manager was assigned to the installation, and orientation is under way. RAB attendance increased dramatically due to dedicated project team involvement.

## Plan of Action

- Complete installation of five additional cleanup systems
- Close eight sites
- Sign innovative cleanup agreement for the UTTR
- Continue stakeholder involvement by hosting additional RAB training and continuing to bolster attendance
- Complete test demonstration of innovative technology using co-metabolic cleanup of TCE
- Complete design for cleanup construction at six sites

## FY99 FUNDING BY PHASE AND RELATIVE RISK

